

Date: Thursday, 11/29/2007 11:08:56 AM  
 User: Kim Johnston

## Process Sheet

52

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : 206L FWD X-TUBE
Job Number : 36053	
Estimate Number : 10553	
P.O. Number :	Part Number : D206667103
This Issue : 11/29/2007 S.O. No. :	Drawing Number : D206-667-143 REVB
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : LANDING GEAR	Drawing Revision : B
Previous Run : 36052	Material :
Written By : <u>07/11/29</u>	Due Date : 12/24/2007 Qty: 1 Um: Each
Checked & Approved By : <u>07/11/29</u>	
Comment : Est Rev:F 05.09.01 Add holes for compatibility with Bell Skid tubes KJJ/JLM	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0

DC

DOCUMENT CONTROL



add D206667103 Rev G



per ECN 1119

Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels as per PPP D206-667-103 CHG002

u  
08/06/09

2.0

D6002115

Crosstube material



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part number Description Batch

1 D6002-115 Crosstube B23966

Check OD = 2.250"; ID = 1.750"

28 07/12/09

3.0

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Fill tube with sand &amp; install plugs DT8534 on both ends as per Folio FA087

2-Turn first side as per Folio FA087

3-Deburr &amp; Inspect for surface damage. Repair damage within limits as per Dwg D206-667-143.

J.F. 07/12/11 (1)

125 07/12/09

4.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

J.F. 07/12/11 (1)

416000  
 7375  
 838775

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 11/29/2007 11:08:57 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 206L FWD X-TUBE

Job Number: 36053

Part Number: D206667103

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Turn second side as per Folio FA087

2-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-143.

3-Remove sand and plugs

4-Scribe part # and batch # using vibrating stylus as per Dwg D206-667-143

Inside of Cuff(Donot engrave on outside of tube)

J.F. 07/12/11 ①

6.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

J.F. 07/12/11 ①

7.0

QC8

SECOND CHECK



Comment: SECOND CHECK

J.L. 07/12/11

8.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

AWM 07-12-12

1-Polish entire outside surface of crosstube

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

DD 7-12-12

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

SR 7-12-12

11.0

BENDING

BENDING MACHINE



Comment: BENDING MACHINE

Bend tube as per Dwg D206-667-143 using CNC bender program 206L-fw and Folio FT017

EL 7-12-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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NOTE: Date & initial all entries

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## Process Sheet

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Drawing Name: 206L FWD X-TUBE

Job Number: 36053

Part Number: D206667103

Job Number:



Seq. #:

Machine Or Operation:

Description:

12.0

QC15

DIMENSIONAL CHECK OF X-TUBES



Comment: DIMENSIONAL CHECK OF X-TUBES

07/12/13 (X)

13.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Drill pilot holes in tube using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Drill all (3) top holes.

2-Drill and Ream all holes in tube to finish size using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Check dimensions between holes on all four sides.

3-Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins.

4-Drill pilot holes using drill Jig DT8541 & DT8542 as per Dwg D206-667-143. Drill only the top (2) holes.

5-Drill & ream the top (2) holes to finish size using drill Jig DT8541 & DT8542 as per Dwg D206-667-143

6-Drill Fwd rivet holes using drill Jig DT8787FWD as per Dwg D206-667-143. Note: Fwd side has 3x top holes.

7-Drill Aft rivet holes using drill Jig DT8787AFT as per Dwg D206-667-143.

8-C'sink holes as per Dwg D206-667-143. Allow rivet to sit below surface to compensate for paint.

9-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-143

SR

7-12-13

AWM 07-12-13

14.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



AWM 07-12-13



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

15.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



POSITIVE  
RECALL

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

07/12/14

16.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/12/14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: PD Date: 08/02/01  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07/12/14	#13	when Drilling for the D2873-043 nut plates causing a small dimple in the opsite in size of the cuff.	CP P Q51042 07/12/18	DRAW AFFECTED SIDE TO LOOK LIKE OPPOSITE SIDE, i.e. 3 bolt holes + 6 RIVET HOLES. REF DSI 9346 REVIF (ATTACHED)	SR 7-12-19	↓ 08/01/02	CP P Q51042 07/12/18	↓ 7/12/14
		DO NOT PASS STEP * #19. with out * Eng. sign off's						

NOTE: Date & initial all entries

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Drawing Name: 206L FWD X-TUBE

Job Number: 36053

Part Number: D206667103

Job Number:



Seq. #:

Machine Or Operation:

Description:

17.0

OUTSIDE SERV.10

OUTSIDE SERVICES -LG



Comment: Sub-Contracting OUTSIDE SERVICES

Liquid Penetrant Inspection as per QSI 0380r

Issue P/O: 5299 LPI as per ASTM 1417

Level 2 Attach copy of NDT results to work order

*CD 7/12/17 (1)*

18.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Inspect for transit damage

Ensure copy of NDT results attached to work order.

*CC 7/12/17 (1)*

19.0

QC6

DIMENSIONAL CHECK



*Do NOT PASS This Step  
OK 08.01.31*

POSITIVE  
RECALL

Comment: Inspect for damage & ensure results are as per Dwg D206-667-103

*08/01/02*

20.0

SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2,

*RT 08-01-09*

21.0

QC14

INSPECT SPRAY PAINT



Comment: Inspect Spray Paint

Wrap in plastic bag to protect from scratches

*08/01/16*

22.0

D2856400

Abrasion Strip<sup>1</sup>



Comment: Qty.: 1.2138 f(s)/Unit Total: 1.2138 f(s)

Pick:

Qty Part number Description Batch

2 D2856-400(Cut to 6.94") Abrasion Strip 35900

*RT 08-01-12*

23.0

D2873043

Nut Plate Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part number Description Batch

2 D2873-043 Nut Plate 33422

POSITIVE RECALL

EFFECTIVE 07.12.14 AUTH U

RELEASED U DATE 07.01.03

*RT 08-01-08*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 206L FWD X-TUBE

Job Number: 36053

Part Number: D206667103

Job Number:



Seq. #:

Machine Or Operation:

Description :

24.0

D2873045

Nut Plate Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part number Description Batch

2 D2873-045 Nut Plate 34077

RT 08-01-08

25.0

D28911

Support 2.25 dia



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part number Description Batch

2 D2891-1 Support 34062

RT 08-01-02

26.0

MS20601AD4W8

RIVET



Comment: Qty.: 14.0000 Each(s)/Unit Total : 14.0000 Each(s)

Pick:

Qty Part number Description Batch

14 MS20601AD4W8 Rivet 105057

RT 08-01-08

27.0

MS2192020

Clamp (per MIL-DTL-8783C)



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part number Description Batch

4 MS21920-20 Clamp 103478

RT 08-01-12

28.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Install abrasion strips as per QSI 035 using DT8579. .Note: (2) Aft holes should be facing up.

2-Install supports and clamps as per Dwg D4206-667-143. Torque clamps to 80-100 in lb

3-Install nut plates as per Dwg D206-667-143. Touch-up rivet heads with Imron paint.

RT 08-01-12

RT 08-01-08

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 206L FWD X-TUBE

Job Number: 36053

Part Number: D206667103

Job Number:



Seq. #:

Machine Or Operation:

Description:

29.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

AS 08/01/16 (X)

30.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

31.0

AN532A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Bolt

Batch: M105408

AS 08/01/16 (X)

32.0

MS21042L5

Nut



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Nut

Batch: M105940

AS 08/01/16 (X)

33.0

AN57A

Bolt



Comment: Qty.: 10.0000 Each(s)/Unit Total: 10.0000 Each(s)

Pick:Packing Kit

Qty Part number

10 AN5-7A

Description

Bolt

Batch M106167

AS 08/01/16 (X)

34.0

AN530A

BOLT



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:Packing Kit

Qty Part number

4 AN5-30A

Description

Bolt

Batch M105144

AS 08/01/16 (X)

35.0

AN960JD516

Washer



Comment: Qty.: 18.0000 Each(s)/Unit Total: 18.0000 Each(s)

Pick:Packing Kit

Qty Part number

18 AN960JD516



Description

Washer

Batch M104156 M106167

AS 08/01/16 (X)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
07.12.18	37	ADD DSI 9346 Rev.6 , PROVIDED BY ENG				 07.12.18 DSI 642	 08/01/19

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 11/29/2007 11:08:57 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 206L FWD X-TUBE

Job Number: 36053

Part Number: D206667103

Job Number:



Seq. #:

Machine Or Operation:

Description:

36.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



DS-13 installed



Comment: INSPECT 100% KITS FOR COMPLETENESS

20860129 (CL)

37.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D206-667-103

Location:

PPP Rev:

D 86129 SD(12)



NEED TO ADD  
DSI 9346 Rev. 6  
SEE W/O CHG

38.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

208102101  
8801-51

Job Completion



POSITIVE RECALL

POSITIVE EFFECTIVE 07/20/08 AUTH P

RECEIVED 11 DATE 08/21/29

RELEASE DATE

ECN 1119

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 36053
<b>Description:</b> Crosstube Assembly (206L High Fwd)	<b>Part Number:</b> D206-667-143
<b>Inspection Dwg:</b> D206-667-143 <b>Rev:</b> B	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

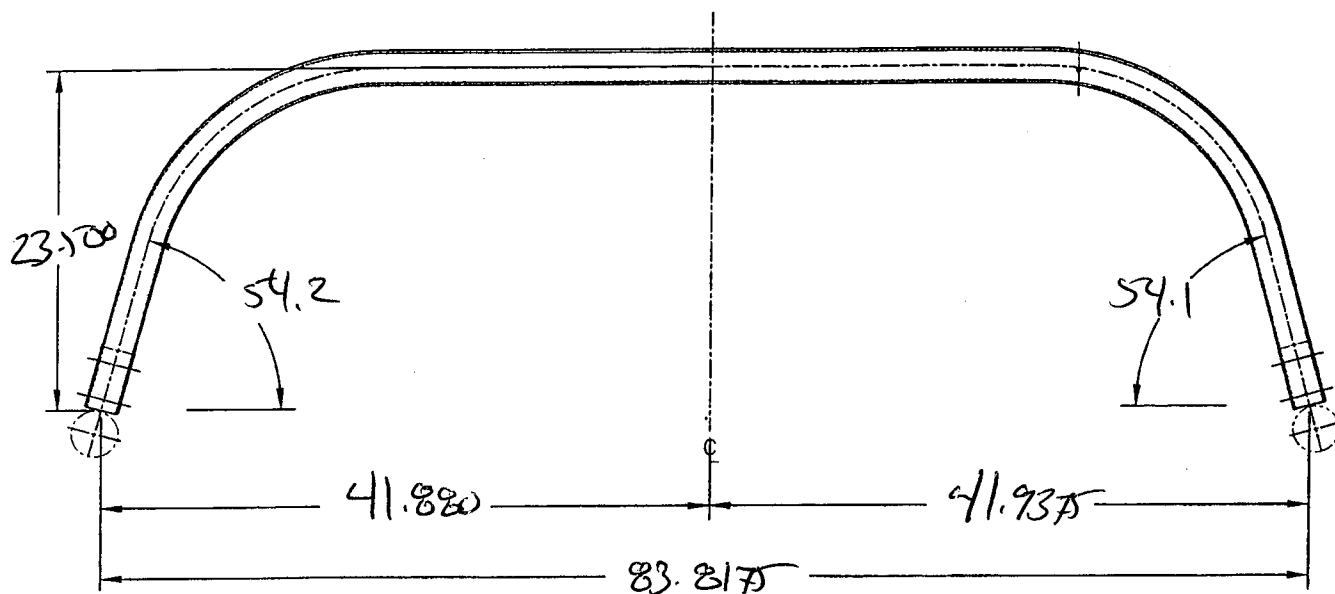
Inspection Sheet Drawing Dimension		Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.240	+0.005/-0.000	2.243"	✓			
	1.982	+0.005/-0.000	1.986"	✓			
	2.019	+0.005/-0.000	2.024"	✓			
	2.058	+0.005/-0.000	2.063"	✓			
	2.097	+0.005/-0.000	2.100"	✓			
	2.136	+0.005/-0.000	2.137"	✓			
	2.176	+0.005/-0.000	2.178"	✓			
	2.201	+0.005/-0.000	2.203"	✓			
	0.125	+/-0.010	.125	✓			
	0.400 x 30°	+/-0.010	.400 x 30°	✓			
	R0.063	+/-0.010	R0.063"	✓			
	R0.500	+/-0.010	R0.500"	✓			
	4.438	+/-0.030	4.437"	✓			
SIDE B	104.98	+/-0.020	104.98	✓			
	2.240	+0.005/-0.000	2.243"	✓			
	1.982	+0.005/-0.000	1.987"	✓			
	2.019	+0.005/-0.000	2.024"	✓			
	2.058	+0.005/-0.000	2.063"	✓			
	2.097	+0.005/-0.000	2.101"	✓			
	2.136	+0.005/-0.000	2.138"	✓			
	2.176	+0.005/-0.000	2.179"	✓			
	2.201	+0.005/-0.000	2.204"	✓			
	0.125	+/-0.010	.125	✓			
	0.400 x 30°	+/-0.010	.400 x 30°	✓			
	R0.063	+/-0.010	R0.063"	✓			
	R0.500	+/-0.010	R0.500"	✓			
	4.438	+/-0.030	4.438"	✓			

<b>Measured by:</b> J.F.	<b>Audited by:</b> J.L.	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 07/12/05	<b>Date:</b> 07/12/11	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	04.05.06	New Issue (P/O D206-667-103)	KJ/RF	
B	06.03.09	Dwg Rev updated	KJ/JLM	

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	36053
<b>Description:</b> Crosstube High Fwd (206L)		<b>Part Number:</b>	D206-667-103
<b>Inspection Dwg:</b> D206-667-143 <b>Rev:</b> B		<b>Page 1 of 1</b>	

Required Dimension	Min	Max
Height	23.46	23.58
1/2 Span	41.86	41.98
Angle	54	56
Total Span	83.72	83.96



Comments

QC15 Inspection	
Date	9/12/13

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	<i>[Signature]</i>





DESIGN PH	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED HDS	APPROVED HDS	DRAWING NO. D206-667-143	REV. B SHEET 1 OF 3
DATE 05.07.26		TITLE CROSSTUBE ASS'Y (206L HIGH FWD) NTS	
A	00.11.17	NEW ISSUE	
B	05.07.26	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	

RELEASED  
05-07-26 H

UNDER REVIEW

05-07-10 PH

re-draw detail F  
PH

07.05.02

Qty	Part Number	Description
X	D206-667-143	CROSSTUBE ASSEMBLY (206L HIGH FWD)
1	D6002-115	CROSSTUBE
2	D2873-043	NUT PLATE
2	D2873-045	NUT PLATE
2	D2856-400-694	ABRASION STRIP
2	D2891-1	SUPPORT
14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
4	MS21920-20	CLAMP

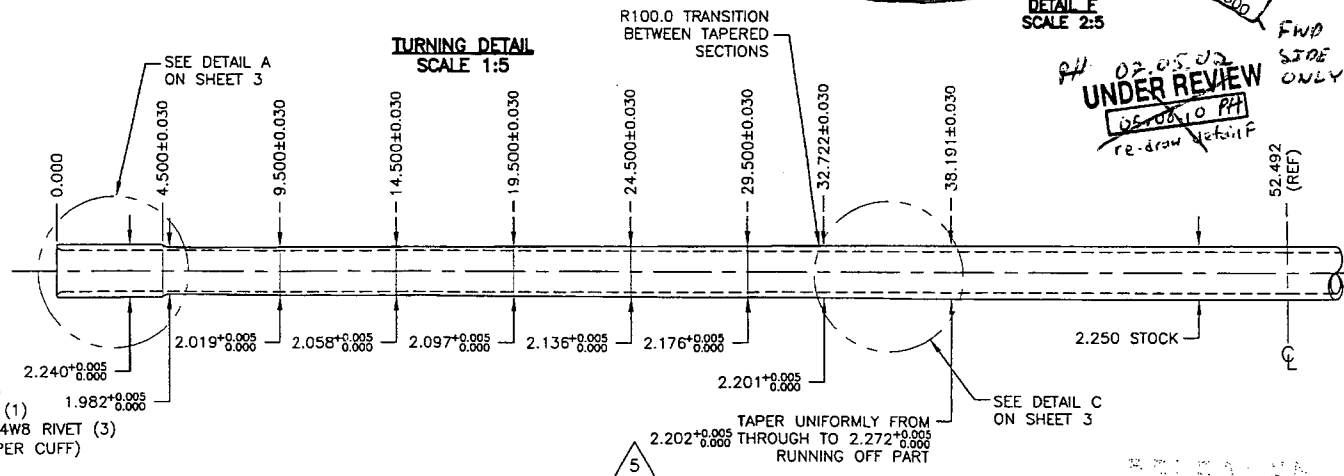
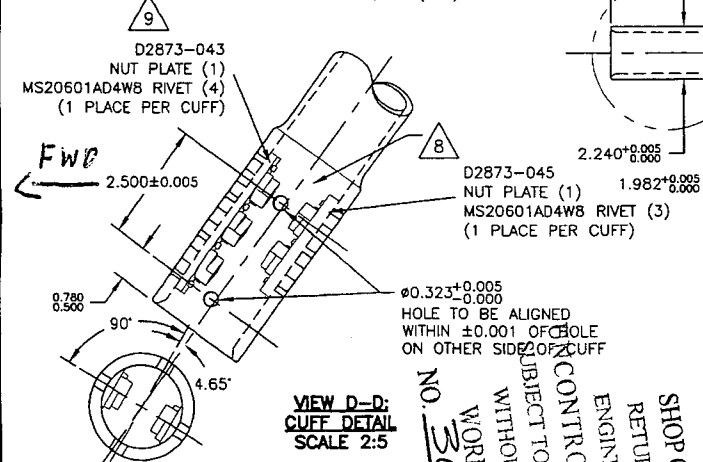
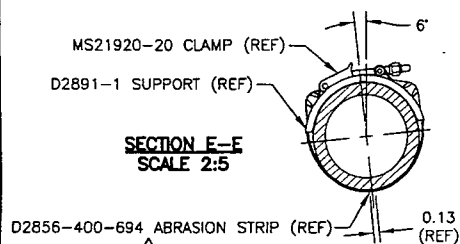
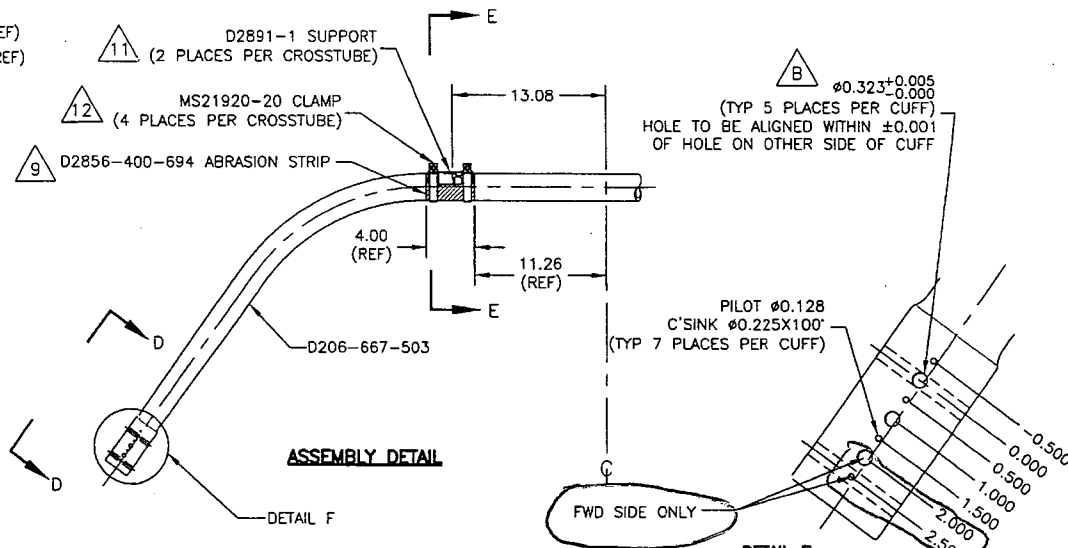
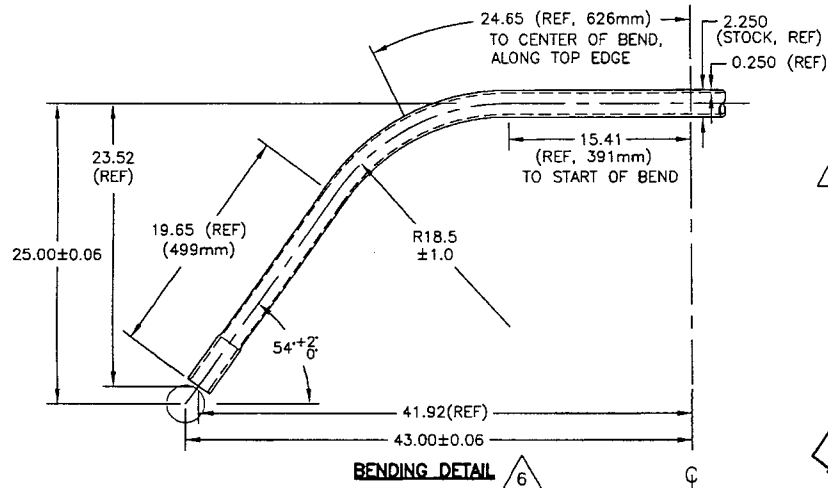
#### GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) MATERIAL: MANUFACTURED FROM D6002-115  
FINISHED LENGTH = 104.98±0.020
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE.
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 6) BEND PROGRESSIVELY WITH A MINIMUM OF 10 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS.
- 9) INSTALL D2856-400-694 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D2891-1 SUPPORT, PER QSI 035.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) IT IS OPTIONAL TO SEAL EDGES OF SUPPORTS AND ABRASION STRIP USING SIKAFLEX 241/291 SEALANT.
- 12) TORQUE CLAMPS 80 TO 100 IN-LB.

SHOP COPY  
TURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 36053

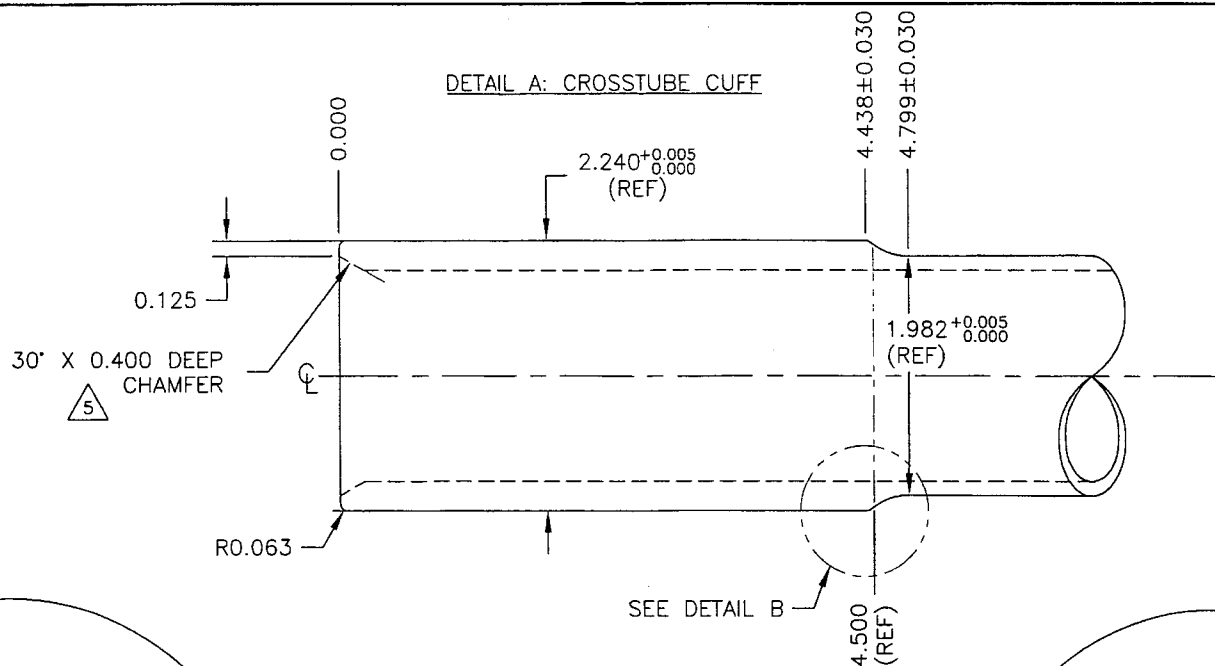
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 SUBJECT TO AMENDMENT  
 WITHOUT NOTICE  
 WORK ORDER  
 NO. 36053



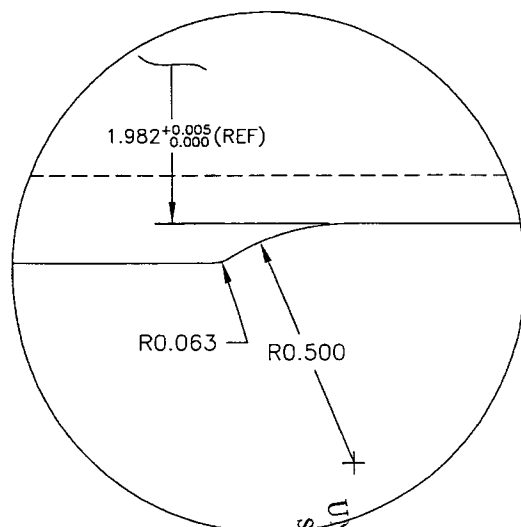
05.07.26 #

**UNDER REVIEW**

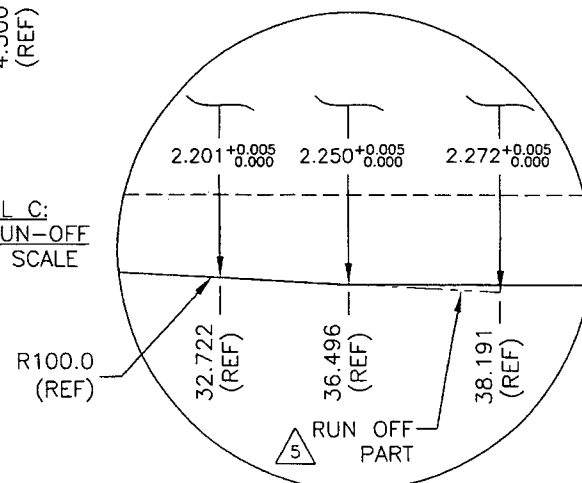
06.08.10 PH

Redraw detail F

PH 07.05.02



DETAIL C: TAPER RUN-OFF NOT TO SCALE



NO. 36053

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CHECKED		PH	PH	DRAWING NO.		REV. B
HDS		PH	PH	D206-667-143		SHEET 3 OF 3
DATE		05.07.26		TITLE		SCALE
				CROSSTUBE ASS'Y (206L HIGH FWD)		1:

**ACUREN****LIQUID PENETRANT TEST REPORT****P - 7-1055**PAGE 1 OF 1  
TIME AM ☐ PM ☐

CLIENT	DART AREOSPACE	DATE	DEC. 14, 2007
ATTENTION	LINDA LACELLE	ACUREN JOB NO.	188-7-01055
ADDRESS	1270 ABERDEEN ST. HAWKESBURY ONT.	POWO No.	
		WORK LOCATION	HAWKESBURY
		ACCEPTANCE STD.	ASTM 1417/QSI-038
		REV./DATE	2005
PROJECT	212/205 HIGH FED X-TUBE, 206L FWD X-TUBES, 206BAFT X-TUBES, 206L AFT X-TUBES		
ITEM(S) EXAMINED	JOB #'S 35725,35893, 36051,36053, 36055, 36056, 36057 ,36059,		

<b>JOB DESCRIPTION</b>	PROCEDURE No. LT-0002 REV./DATE	TECHNIQUE No. LT-0002-02 REV./DATE
Part No.	D206667201, D206667203, D212664101, D206667103	Material ALODYNED ALUMINUM Thickness
Scope	WET FLOURESCENT LIQUID PENETRANT INSPECTION CARRIED OUT ON 100% OF EXTERNAL SURFACE.	

**TEST DETAILS**

Method	<input checked="" type="checkbox"/> Fluorescent	<input type="checkbox"/> Visible	<input checked="" type="checkbox"/> Water Wash	<input type="checkbox"/> Solvent Removable	<input type="checkbox"/> Post Emulsified
Family Brand	MAGNAFLUX		Black Light S/N 8178	<input checked="" type="checkbox"/> Output > 1000 $\mu$ W/cm <sup>2</sup>	<input checked="" type="checkbox"/> Ambient < 2 fc
Penetrant	ZL67	Minimum Dwell time 45 Min.	Lighting Equip. <input checked="" type="checkbox"/> Flashlight <input type="checkbox"/> Troublelight	<input checked="" type="checkbox"/> Output>100 fc @ surface	
Penetrant Remover	H20	Minimum Dry time >10 Min.	Other		
Developer	SKDS2	Minimum Dwell time 10 Min.	Light Meter S/N	Cal Due Date	MAR 08
Developer Type	<input checked="" type="checkbox"/> Non Aqueous	<input type="checkbox"/> Aqueous	<input type="checkbox"/> Dry		

**TEST SURFACE**

Surface Condition	<input checked="" type="checkbox"/> As Ground	<input type="checkbox"/> As Welded	<input checked="" type="checkbox"/> Machined	<input type="checkbox"/> Shot Blasted	<input type="checkbox"/> Clean Bare Metal
Surface Temperature	<input type="checkbox"/> < - 4°C/ 20°F	<input type="checkbox"/> - 4°C/ 20°F to 10°C/50°F	<input checked="" type="checkbox"/> 10°C/50°F to 52°C/125°F	<input type="checkbox"/> > 52°C/125°F	

**RESULTS-** (☐ METRIC ☐ IMPERIAL)

item	Comments	Accept	Reject
	F.L.P.I. CARRIED OUT ON 100% OF EXTERNAL SURFACE OF: 212/205 HIGH FED X-TUBES JOB# 35893		
	206B AFT X-TUBES JOB #'S 36051, 35725		
	206L FWD X-TUBES JOB#'S 36053, 36055		
	206L AFT X-TUBES JOB #'S 36057, 36059, 36056		
	RESULTS: 206B AFT X-TUBE #36051 HAS ROUGH GRINDING MARKS. TO BE POLISHED AND RECHECKED AT A LATER DATE.		
	ALL OTHER JOB #'S ARE ACCEPTABLE TO ASTM 1417/ QSI-038 STANDARD.		

**Scope of Services**

The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

**Standard of Care**

In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Group Inc.

**SIGNATURES**

Client Representative		DTR #
Technician (Signature):		Report Reviewed by:
Name (Print):	FREDERICK CHAGNON	Name initials
	1 <sup>st</sup> technician	
CGSB Level	II SNT Level	
CGSB Reg. No	10560	
	2 <sup>nd</sup> technician	
CGSB Level	II SNT Level	
CGSB Reg. No	12247	

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GOLD - OFFICE COPY

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D206-667 REV. C

REF. CANADIAN STC: SH01-5

REF. FAA STC: SR01304NY

REFERENCE ONLY

THE FOLLOWING D206-667-101/-103/-203 AND D407-667-105 CROSSTUBES HAVE EXTRA HOLES DRILLED ON THE AFT SIDE OF THE CUFFS. THIS HOLE IS NOT REQUIRED FOR INSTALLATION OF DART CROSSTUBES ONTO BHT/AAI SKIDTUBES AS SHOWN IN FIGURE 1.

CUSTOMERS RECEIVING CROSSTUBES AT CHG 002 PRIOR TO 06.08.08 SHOULD CONTACT DART FOR DISPOSITION IF INSTALLING THE DART CROSSTUBES ONTO BHT/AAI SKIDTUBES PER IIN-D206-667 REV. C.

CUSTOMERS RECEIVING CROSSTUBES AT CHG 002 PRIOR TO 06.08.08 TO BE INSTALLED WITH DART SKIDTUBES MAY FIND THAT THE SUPPORTS HAVE BEEN INSTALLED BACKWARDS. THE SUPPORTS SHOULD BE REMOVED AND RE-INSTALLED PER ICA-D206-667.

PART NO.	CHANGE NUMBER	BATCH NO
D206-667-101	002	B24244, B28679, B29261
D206-667-103	002	B26702, B26704, B27980, B25606, B25605, B23220, B23219, B23218, B23217, B28682, B28683, B32664, B34139
D206-667-203	002	B27492, B27491, B27981, B25609, B25608, B25006, B24646, B34144
D407-667-105	002	B31553

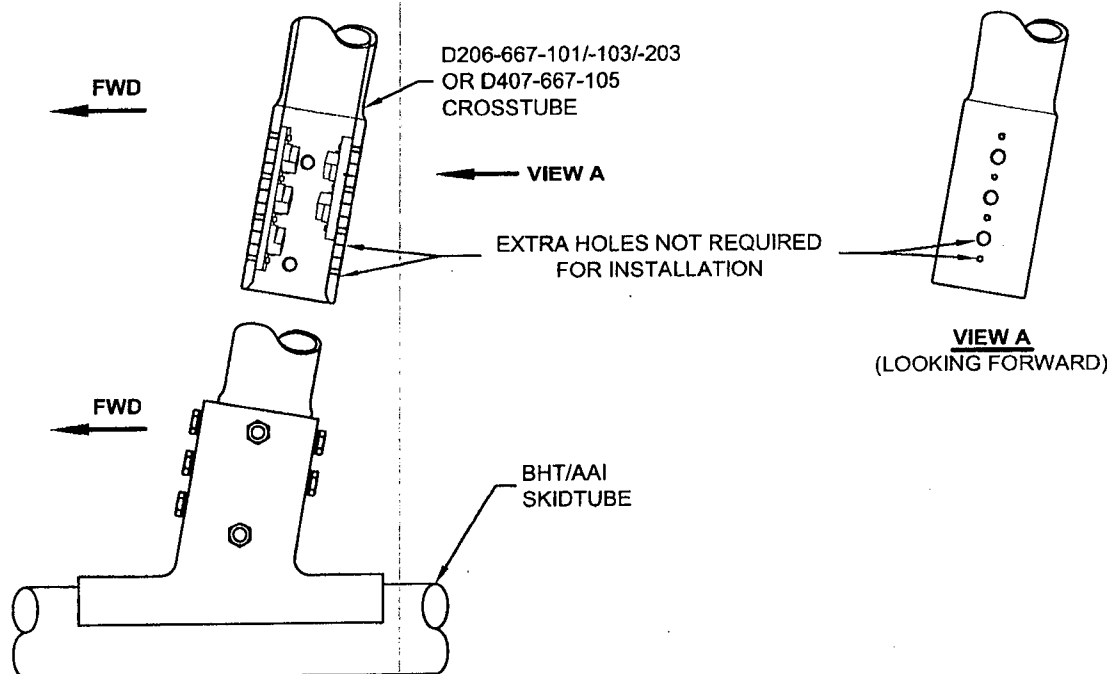


FIGURE 1 - INSTALLATION OF DART CROSSTUBES ON BHT/AAI SKIDTUBE

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED  
BY: *[Signature]*  
D. SHEPHERD (DE # 02)

DATE: 07.10.22  
CERT. NO.: SH01-5  
ISSUE NO.: 3

REV.	DESCRIPTION	BY	DATE
F	ADD B34139, B34144	MB	07.10.22
E	ADD D407-667-105 & B31553	MB	07.08.14
D	ADD B32664	MB	07.07.24
C	ADD B29261	MB	06.11.20
B	ADD B28679, B28682, B28683	PH	06.10.10
A	NEW ISSUE	PH	06.08.08
DESIGN	<i>PH</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>PH</i>		
CHECKED	<i>PH</i>	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9346	SHEET 1 OF 1
APPROVED	<i>NO</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	DEVIATION ON D206-667 & D407-667	NTS
DATE	07.10.22	COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Date: Thursday, 11/29/2007 11:08:56 AM  
User: Kim Johnston

## Process Sheet

52

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : 206L FWD X-TUBE  
Job Number : 36053  
Estimate Number : 10553  
P.O. Number :  
This Issue : 11/29/2007 S.O. No. :  
Prsht Rev. : NC Part Number : D206667103  
First Issue : / / Type : LANDING GEAR Drawing Number : D206-667-143 REVB  
Previous Run : 36052 Drawing Revision : B  
Material :  
Written By : Due Date : 12/24/2007 Qty: 1 Um: Each  
Checked & Approved By : 07/11/29  
Comment : Est Rev:F 05.09.01 Add holes for compatibility with Bell  
Skidtubes KJ/JLM

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels as per PPP D206-667-103 CHG002

07.12.07

2.0 D6002115 Crosstube material



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part number Description Batch

1 D6002-115 Crosstube

Check OD = 2.250"; ID = 1.750"

3.0 MORI SEIKI MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Fill tube with sand &amp; install plugs DT8534 on both ends as per Folio FA087

2-Turn first side as per Folio FA087

3-Deburr &amp; Inspect for surface damage. Repair damage within limits as per Dwg D206-667-143.

REFERENCE ONLY

4.0 QC1 INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET